



UNITED STATES PATENT AND TRADEMARK OFFICE

91

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/756,891	01/09/2001	Mark Schavone	286308-00001	6717

7590 08/08/2002

William F. Lang, IV
Eckert Seamans Cherin & Mellott, LLC
600 Grant Street, 44th Floor
Pittsburgh, PA 15219

EXAMINER

HOLZEN, STEPHEN A

ART UNIT

PAPER NUMBER

3644

DATE MAILED: 08/08/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

DRAFT

Office Action Summary	Application No.	Applicant(s)	
	09/756,891	SCHAVONE, MARK	
	Examiner	Art Unit	
	Stephen A. Holzen	3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 09 January 2001.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-53 is/are pending in the application.

4a) Of the above claim(s) 33-53 is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-8, 12-24 and 27-32 is/are rejected.

7) Claim(s) 9-11, 25, 26 is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group 1 in Paper No. 6 is acknowledged.
2. Claims 33-53 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 6.

Specification

3. The disclosure is objected to because of the following informalities:
 - Page 3, lines 20: The phrase "preferably by cylindrical" should be -- preferably be cylindrical--.
 - Page 14, lines 25: The phrase "a pair of slots 154, 154 permit" should be --a pair of slots 154, 156 permit--.
 - Page 16, line 4: The phrase "follower 102" should be --follower 142--.
 - Page 17, line 10: The phrase "pawl carrier 24" should be --pawl carrier 124--.
 - Page 15, line 6: The phrase "piston bolt driver 158" should be --piston bolt driver 160--.

Appropriate correction is required.

4. Claims 4 and 5 are objected to because of the following informalities: Claim 4 refers to itself and claim 5 refers to claim 4. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 4 and 5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 4 refers back to itself. For the purpose of this examination it has been assumed that Claim 4 meant to refer to Claim 3.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Tippmann (4,819,609). Claim 1 is also rejected under 35 U.S. C. 102(b) as being anticipated by Chiba (4,116,193). Tippmann and Chiba both disclose a gas-powered gun, comprising a means for simulating a recoil approximating a recoil generated by a gun firing a powder-propelled projectile. It is inherent that all guns “approximate” a recoil generated. By the properties of physics every action has an equal and opposite re-action. Dispelling a projectile at a high velocity in one direction, translates into a “re-coil” resultant momentum of the gun, in the other direction.

Claims 2-5, 7 and 8 are rejected under 35 U.S.C. 102 (b) in view of Tippmann as applied to claim 1 above: Tippmann discloses a bolt reciprocating between a forward position and a rearward position, said bolt being biased towards its forward position, said bolt having a gas-receiving surface (#39); and

a valve assembly dimensioned and configured to discharge compressed gas both forward into a firing chamber and rearward onto said bolt face when said bolt reaches its forward position (see Fig. 5);

a stationary forward valve (see Fig. 5);

a housing reciprocating between a forward position wherein said forward valve is open, and a rearward position wherein said forward valve is closed, said housing being biased towards its rearward position; and a rear valve reciprocating between a forward position wherein said rear valve is open, and a rearward position wherein said rear valve is closed, said rear valve being biased towards its rearward position (see Fig. 5)

a spring dimensioned and configured to bias said housing and said rear valve towards their rear positions (see Fig. 5)

comprising a buffer assembly dimensioned and configured to bias said bolt towards its forward position, and to provide a recoil for a shooter (see Fig. 2)

wherein said buffer assembly comprises a spring-biased air resistance bolt driver (#39).

9. Claims 17-24 and 27-32 are rejected under U.S.C. 102 (b) as being anticipated by Chiba as applied to claim 1 above.

Re - Claim 17: Chiba discloses a magazine assembly, comprising: a magazine having a plurality of chambers, each of said chambers being dimensioned and configured to be axially aligned with a barrel, and to receive a projectile therewithin; means for automatically indexing said magazine upon the cycling of a bolt; and means for automatically aligning one of said chambers with said barrel upon completion of indexing (see Abstract).

Re - Claims 18-24: Chiba discloses magazine which is a cylinder (see Fig. 10), a magazine tube dimensioned and configured to align with one of said magazine's chambers and to contain projectiles, said magazine tube containing a spring-biased follower (see Col. 7, lines 13-35), wherein said means for automatically indexing said magazine upon the cycling of a bolt comprise: a pawl carrier reciprocating between a first side position and a second side position; and

a pawl dimensioned and configured to engage one of said chambers when said pawl carrier is in said first side position, and one of said chambers when said pawl carrier is in said second side position, said pawl being biased towards said magazine (see Col. 7, lines 13 - 35),

wherein said pawl comprises: a pusher surface dimensioned and configured to index said magazine when said pawl carrier moves from said first side position to said second side position; and

a ramped surface dimensioned and configured to permit said pawl to exit one of said chambers when said pawl carrier moves from said second side position to said first side position, and to engage another of said chambers when said pawl carrier reaches said first side position, (Col. 7, lines 13 - 35),

further comprising an operating rod secured to a bolt, said bolt reciprocating between a forward position and a rear position, said operating rod being dimensioned and configured to cyclic said pawl carrier upon the cycling of said bolt (see Col. 7, lines 13 - 35)

wherein said operating rod is dimensioned and configured to move said pawl carrier from said second position to said first position when said bolt moves towards its forward position, and to move said pawl carrier from said first position to said second position when said bolt moves towards its rear position (Fig. 3)

wherein said operating rod comprises a slot, said slot being angled relative to a direction of travel of said bolt (see Fig. 3); and
said pawl carrier includes a pin dimensioned and configured to engage said slot in said operating rod (see Fig. 3).

Re - Claims 27-32: Chiba discloses a magazine which is an elongated sliding member, said sliding member having a plurality of indexing chambers (see Fig. 3), wherein said means for automatically indexing said magazine upon the cycling of a bolt comprise: a pawl carrier reciprocating between a first side position and a second side position; (see Fig. 3) and a pawl dimensioned and configured to engage one of said indexing chambers when said pawl carrier is in said first side position, and one of said indexing chambers when said pawl carrier is in said second side position, said pawl being biased towards said magazine, a pusher surface dimensioned and configured to index said magazine when said pawl carrier moves from said first side position to said second side position (see Fig. 3); and

a ramped surface dimensioned and configured to permit said pawl to exit one of said indexing chambers when said pawl carrier moves from said second side position to said first side position, and to engage another of said indexing chambers when said pawl carrier reaches said first side position (see Fig. 3)

an operating rod secured to a bolt, said bolt reciprocating between a forward position and a rear position, said operating rod being dimensioned and configured to cyclic said pawl carrier upon the cycling of said bolt (see Fig. 3)

wherein said operating rod is dimensioned and configured to move said pawl carrier from said second position to said first position when said bolt

moves towards its forward position, and to move said pawl carrier from said first position to said second position when said bolt moves towards its rear position (see Fig. 3)

wherein said operating rod comprises a slot, said slot being

angled relative to a direction of travel of said bolt (see Fig. 3); and

said pawl carrier includes a pin dimensioned and configured to engage said slot in said operating rod (see Fig. 3).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tippmann in view of ordinary skill in the art. Tippmann discloses every aspect of the present invention except for a bolt wherein said bolt includes a floating mass. However it would have been obvious to one of ordinary skill in the art at the time the invention was made to design a bolt with a floating mass since the applicant's disclosure lacks any disclosed criticality having a floating mass. The use of a floating mass is a simple matter of design choice.

12. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tippmann in view of Robbins (5,760,328). Tippmann discloses a trigger (#19) having a finger-engaging portion (#19) and a selector engaging portion (#35). Robbins discloses a selector comprising: a first surface dimensioned and configured to abut said selector-engaging portion of said trigger and to resist movement of said trigger; a second surface dimensioned and configured to abut said selector-engaging portion of said trigger and to permit a first distance of movement of said trigger; a third surface dimensioned and configured to abut said selector-engaging portion of said trigger and to permit a second distance of movement of said trigger, said second distance of movement being greater than said first distance of movement; a channel dimensioned and configured to permit a third distance of movement of said trigger, said third distance of movement being greater than said second distance of movement; and said selector is dimensioned and configured to permit said first surface, second surface, third surface, and channel to be selectively positioned to engage said trigger's selector-engaging portion (see Figs. 1 and 3 to Robbins). It would have been obvious at the time of the invention to one having ordinary skill in the art to include the teachings of Robbins into the device of Tippmann for more choices as to the type of fire the user desired.

Re - Claim 13: Robbins discloses wherein said first surface corresponds to safe, said second surface corresponds to semiautomatic operation, said third surface corresponds to full automatic operation at a first cyclic rate, and said channel corresponds to full automatic operation at a second cyclic rate, said second cyclic rate being faster than said first cyclic rate (see Figs. 1 and 3).

13. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tippmann as applied to claims 12 and 13 above, and further in view of Chiba (4,116,193). Tippmann discloses every aspect of the present invention except for a sear trip associated with the trigger. Chiba discloses that it is old and well known in the art to use a sear trip in association with the trigger. (see #34, Fig. 1). It would have been obvious to one of ordinary skill in the art to use the sear trip of Chiba in the device of Tippmann for increasing reliability of the trigger and sear communication.

Re - Claim 15: Tippmann in view of Chiba disclose a sear (#51), said sear having a first end dimensioned and configured to selectively engage and release a bolt (#59), and a second end dimensioned and configured to engage said sear trip (#34 to Chiba), said sear being spring-biased (#57) into engagement with said bolt, said sear being secured to a receiver by a sliding pivot (#55).

Re - Claim 16: Chiba discloses sear trip further comprises an end having an upper step and a lower step, with said upper step and lower step each having a radiused corner (#34).

Allowable Subject Matter

14. Claims 9 -11, 25 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen A. Holzen whose telephone number is 703-308-2484. The examiner can normally be reached on M-F 7:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles T. Jordan can be reached on 703-306-4159. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-7687 for regular communications and 703-305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-4174.

Charles T. Jordan
CHARLES T. JORDAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600